

**Eupithecia cocoata, new species.**

Expanse 22 mm. Palpi long, rough, scaled. Antennæ flattened, rather stout, ciliate. Head and entire upper surface of body and wings a uniform chocolate-brown, the costa barred with paler streaks, which are beginnings of narrow, pale, indefinite, wavy lines across fore wings. The most prominent of these are from a twin spot, turning outward and enclosing discal dot, and running thence in a broad wave straight to inner margin. The pale line usually succeeding extradiscal is also present, geminate across costa, then coalescing and becoming indistinct, curved strongly outward at costa, not angled; inclined basally with a large curve between veins one and two, it reaches inner margin three fourths out. The white line usually traversing subterminal space is absent, showing only in a cluster of pale scales at anal angle. Discal dots moderately large, oval, jet black, outwardly bordered with a few white scales. Fringes on all wings same color as upper surface, slightly darkened opposite veins. Terminal line dark chocolate-brown, interrupted between veins. Hind wings showing continuance of pale line succeeding extradiscal, otherwise unmarked except along inner margin, where they are shortly barred with dark brown, and at anal angle, where scattering dark brown scales are contiguous to a conspicuous white lunate spot. Discal dots round, small, dark brown. Beneath whitish, thickly sprinkled with brown scales, showing a discal, extradiscal and broad subterminal shade lines, in darker tints, all heavier at costa. The pale lines as indicated above, also clearer white. The hind wings basally are crossed with narrow wavy pale lines, and the subterminal shade line is blackened at anal angle. Discal dots as above, but all dark brown. Abdomen beneath with white scales. Fore legs dark brown, the tarsi banded with paler. Middle and hind legs whitish.

*Type*. — One ♂ in U. S. Nat. Museum, taken at Plummer's Island, Maryland, probably in June.

This species differs from *meritata* Pear. in color, in the absence of black lines or veinings, in its stouter, more heavily ciliate antennæ and longer palpi.

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## NEW WESTERN TENTHREDINIDÆ.\*

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**1. *Bactroceros pugnax*, new species.**

*Female*. — Length 9.5 mm.; length of anterior wing 8 mm. Robust. Head almost as wide as thorax, polished, without punctures; face not very strongly margined and not as perpendicular as in *Bactroceros luteicornis* Nort.; posterior angles of head rounded; clypeus rounded at sides, rather truncate across middle; middle carina extending on basal half of clypeus; middle carina divides above antennæ

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\*The writer wishes to express his thanks to Prof. C. P. Gillette and Mr. H. S. Smith for the loan of material and to Prof. T. D. A. Cockerell for many favors. Unless otherwise stated, the types are in the author's collection.

forming two low, rounded carinæ; ocellar basin distinct, the lower walls being the branches of the middle carina; lateral ocelli smaller than the anterior one; ocelli forming a triangle. From each antennal fovea there is a broad furrow running upward to about the level of lateral ocelli. Left mandible tridentate, second tooth small, obtuse. Eyes prominent, almost round. Antennæ 26-jointed, rather short, third joint as long as four plus five. Thorax above shining, without punctures, pleurae and pectus with a few rather small punctures; pronotum with a few rather long yellowish hairs. Venation as in *Bactroceros depressus* (Proc. U. S. Nat. Mus., xxix, Fig. 41), except that the second radial cell is not so acute at apex above. Tarsal claws deeply cleft, inner tooth somewhat shorter than outer; four hind tibiæ with a pair of spurs about one fourth from the apex and a single spur near the middle. Abdomen polished, venter with some rather short rufous hairs. Color shining black; clypeus, mandibles except tips, which are piceous, palpi, spot on lower half of cheeks, four small spots across front on an imaginary line drawn across between the eyes about the middle, two elongate spots on vertex back of ocelli, a line from middle of inner orbits to occiput (this line is wider at the occiput), tegulæ, small spot on posterior angle of pronotum, four anterior legs (the tibiæ and tarsi are somewhat reddish) and posterior femora *yellow*. Abdomen entirely and posterior tibiæ and tarsi *rufous*; coxæ and trochanters black. Wings hyaline, with a very faint yellowish tinge; nervures and stigma black.

*Habitat.* — Russell, Costilla Co., Colo., June 25, 1907 (L. Bruner). Type in the entomological collection of the University of Nebraska. Tightly held by the mandibles is the leg of some other insect.

This species differs from most species of the genus *Bactroceros* in having the head polished and the front not very strongly margined. In these characters it seems to come near *Liolyda* but differs from that genus in the intercostal nervure, etc. It seems to be most closely related to *pallimacula* Nort. and *rufocinctus* Cress. but may be separated from these species at once by the almost entirely black thorax and other characters.

## 2. *Lycaota bruneri*, new species.

*Female.* — Length 5 mm. Head narrower than thorax; clypeus slightly emarginate; labrum rounded; mandibles simple; malar space almost wanting; middle fovea very large, shallow; ocellar basin distinct, walls rounded, middle of lower wall notched. Antennæ as usual for the genus, third joint almost as long as four plus five, last six joints subequal. Transverse radial nervure received in apical fourth of cell; stigma broad at base tapering to apex; tarsal claws simple; sheath broad, of about equal width throughout, truncated. Color black; apex of mandibles rufous; labrum piceous; tegulæ, posterior angle of pronotum, two ventral segments of the abdomen, *pale brown*; legs clear reddish; coxæ, trochanters, basal third of four anterior femora black; basal third of tibiæ pallid; tarsi infuscated. Wings hyaline, nervures and stigma brown.

*Habitat.* — Ute Creek, Costilla Co., Colo., 9,000 ft., June 27, 1907 (L. Bruner).

This species has its closest ally in *Lycaota nova* Nort. (Maine), but may be distinguished by the more rufous legs, different structure of head, antennæ, etc. I do not think that it is the female of *L. lenis* Cress.

### 3. *Camponiscus smithi*, new species.

*Female.* — Length 7.5 mm.; length of anterior wing about 7.5 mm. Head not quite as wide as thorax, a little wider behind eyes; clypeus deeply circularly emarginate, lobes broad, obtusely pointed; labrum rounded at apex; middle fovea rather shallow, broad, walls sloping; frontal crest strong, slightly broken in the middle; ocellar basin distinct, rather sharply pointed above, walls somewhat rounded. Furrow on anterior lobe of mesonotum distinct and extending the entire length. Claws deeply notched, teeth stout, subequal. Intercostal vein a little beyond basal; basal vein joining subcostal about its own length basal to the origin of the cubitus; first recurrent nervure short, not quite parallel with basal; transverse median in middle of cell; stigma large, broadest near base, tapering to apex; from second recurrent nervure to about middle of third cubital on cubitus is an extra nervure; lower discal cell of hind wing exceeding upper on outer margin. Sheath broad, rounded on lower margin, a brush of hairs at apex; cerci long, slightly tapering. Color reddish-yellow; clypeus, labrum, base of mandibles (the apex piccous), posterior angles of pronotum and tegulæ somewhat pallid; antennæ above, small spot around ocelli, a very small spot above each antenna, eyes (ocelli brownish), two spots on lateral lobes of mesonotum, suture between scutellum and lobes of mesonotum, post-scutellum, metanotum, middle of basal plates, sutures of metapleuræ, extreme bases of posterior coxæ, apex of first and second tergal segment, base of sheath *black* or *brownish*. Wings slightly yellowish hyaline, costa and stigma yellowish hyaline, rest of nervures brownish.

*Habitat.* — Ute Creek, Costilla Co., Colo., 9,000 ft., July 1, 1907 (H. S. Smith).

Closely related to *C. americanus* Marl., but separated by characters given below. Type in the Univ. of Nebraska.

### 4. *Camponiscus albstigmus*, new species.

*Female.* — Length 7 mm.; length of anterior wing 6.5 mm. Not as robust as *smithi*. Head not as wide as thorax, well developed behind eyes; clypeus very slightly emarginate, almost truncated; labrum slightly notched at apex; middle carina strong, rounded below antennæ; middle fovea shallow, walls sloping; frontal crest strongly notched in middle; ocellar basin with walls rounded; antennal joints enlarged at apex, third joint longest; middle furrow of anterior lobe of mesonotum distinct, running the entire length. Claws bifid, teeth subequal. Intercostal vein about its length beyond basal; basal vein not its length basal to origin of cubitus, but more than half of it; first recurrent as in *C. smithi* Roh.; transverse median a little beyond middle of cell; upper discal cell of hind wings exceeding lower on

outer margin; stigma broad, not strongly tapering. Sheath broad at base, lower margin tapering to apex; cerci long, very slightly tapering. Color reddish-yellow; clypeus, labrum, mandibles (the apices are piceous), cheeks below eyes and tegulæ in part, white; two basal and part of third antennal joints above, eyes, ocelli, spot on lateral lobes of mesonotum, suture between scutellum and mesonotum, metanotum, postscutellum, middle of basal plates, base of posterior coxæ, a spot above and sheath above, *black*; base of ventral and tergal segments brownish; sheath with long hairs. Wings hyaline, iridescent; costa and stigma white, nervures pale brown.

*Habitat.* — Ute Creek, Costilla Co., Colo., 9,000 ft., July 2, 1907 (L. Bruner). Type in the Entomological Department of the Univ. of Nebraska.

This species does not seem to be closely related to the other American species.

It was quite a surprise to find these two new species of *Camponiscus* in a lot of Tenthredinidæ sent me by Mr. H. S. Smith, of the University of Nebraska. There is but one other species of the genus known from North America (*C. americanus* Marl., Can. Ent., p. 251, October, 1896) and it is from New York and New Hampshire. This is an excellent example of how little we know of our saw-fly fauna! I give below a table with which to separate the American species of this genus:

1. Clypeus very shallowly emarginate; frontal crest strongly broken; stigma and costa white; antennæ reddish yellow..... *albostigmus*, new species.  
Clypeus deeply emarginate; frontal crest not or but slightly broken; stigma yellowish hyaline; antennæ dark above.....2
  2. Middle fovea deep; scutellum in part black; meso-epimera and femora infuscated; no black spots on mesonotum.....*americanus* Marl.  
Middle fovea shallow; no black on scutellum; meso-epimera and femora not infuscated; two dark spots on lateral lobes of mesonotum...*smithi*, new species.
5. ***Pteronus costillensis*, new species.**

*Female.* — Length 5.5 mm.; length of anterior wing 5.5 mm. Not very robust. Head not as wide as thorax; labrum rounded at apex; clypeus very shallowly emarginate, lobes broad, rounded; middle fovea circular, rather deep; antennal joints three, four and five equal; ocellar basin distinct, lateral walls running to lateral ocelli; lower wall broader and rounder than lateral walls; frontal crest somewhat curved anteriorly, slightly broken. Claws deeply notched, teeth equal. Venation normal; stigma broadest at base, tapering to apex. Sheath broad, slightly obliquely truncated at apex, hairs on apex small; cerci rather long, not noticeably tapering. Color reddish-yellow, somewhat darker on vertex and dorsulum; ocelli, eyes and abdomen somewhat *black* above; antennæ a little darker above; clypeus, labrum, mandibles (apex piceous) and coxæ *pallid*. Wings hyaline, iridescent; costa and stigma very pale yellowish brown, rest of nervures darker.

*Habitat.* — Sierra Blanca, Costilla Co., Colo., 10,000–11,500 ft.,

June 22, 1907 (L. Bruner). Type in collection of Nebraska University.

This species is most closely related to *P. unicolor* Marl. (Calif.) but may be separated by the differently shaped clypeus, and the stigma which is not acuminate and unicolorous and is darker. It also bears resemblance to *P. mendicus* Walsh but may be distinguished by the deeper middle fovea, and the frontal crest which is not strongly broken and is much paler in color. It may be *monochroma* Nort. but the pleuræ are not darker than the rest of the body. The type of *monochroma* is lost.

#### 6. *Pontania utensis*, new species.

*Female*. — Length 4.5 mm.; length of anterior wing 4.5 mm. Robust, head nearly as wide as thorax, rather densely covered with fine punctures; clypeus moderately, deeply and circularly emarginate; lobes broadly rounded. Third antennal joint a little the longest, joints gradually decreasing in length; middle fovea distinct, circular; frontal crest not broken, rather strongly projecting, tooth like; ocellar basin indistinct, lower wall nearly, or quite obsolete, lateral walls low, rounded, subparallel. Mesonotum not as densely punctured as head, the furrow of middle lobe extending about half way across; venation normal, except that the basal vein is rather strongly bent at base. Claws deeply notched, teeth subequal, well separated. Sheath broad, slightly excavated below, obtusely rounded at apex; cerci rather short, stout. Color black, clypeus, labrum, mandibles (apex piceous), cheeks and face below eyes, posterior angles of pronotum, tegulæ pallid; legs from apical part of coxæ reddish yellow; femora beneath sometimes infuscated; posterior and superior orbits dark rufous. Wings hyaline, iridescent; costa at base, stigma at base and in middle pallid; rest of nervures pale brown.

*Habitat*. — Ute Creek, Costilla Co., Colo., 9,000 ft. Two ♀♀ June 22, 1907 (R. W. Dawson), one ♀ July 1, 1907 (R. W. Dawson), one ♀ June 22, 1907 (L. Bruner). Cotypes in collection of Univ. of Nebraska and in the author's own collection.

Separated from *excavata* Marl. its nearest ally by the different frontal crest, teeth of claws subequal and well separated, second recurrent nervure not, or not nearly interstitial with second transverse cubitus, antennæ not lighter beneath, etc.

#### 7. *Pteronus solitarius*, new species.

*Female*. — Length 7 mm. Head viewed from the side shows the vertex much higher than eyes, slanting from the front (not so strongly as in *Pteronus odoratus* Dyar); eyes oval; ocellar basin large, well defined by narrow raised walls, the two side walls running to lateral ocelli, thus being parallel or sub-parallel; middle fovea deep, triangular; antennal foveæ deep, pointed above the antennæ. Antennæ slender, long, tapering, third and fourth joints equal, last two joints equal. Clypeus angularly emarginate, lobes broad, pointed. Venation of hind wings about normal;

the upper discal exceeds the lower considerably, the petiole of lanceolate cell is rather longer than usual; fore wings wanting. Claws deeply and evenly notched. Sheath broad, obtusely pointed; cerci stout, rather short. Color reddish yellow; antennæ, eyes, large spot from base of antennæ above to occiput, mesonotum, scutellum, metanotum, basal plates, abdomen above, not so widely at the apex, sheath, hind tibiæ and tarsi, small spot under tegulæ, two small spots on meso-pectus *black*; four anterior tarsi somewhat infuscated. Wings hyaline, nervures brown.

*Habitat.* — Trinidad, Colo., May 14, 1892 (C. P. Gillette), "general collecting." Type in collection of Colorado Agricultural College.

This species was labeled "*Enura s-nodus* Walsh," which it is not. If it is an *Enura* it can be known from *E. s-nodus* by black posterior tibiæ and tarsi. Although the fore wings are not present I feel sure it is a *Pteronous*. It may be separated by the following character from its allies.

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|--|----------------------------------|
| 1. Clypeus broadly, circularly emarginate .....                        | 2                                |
| Clypeus angularly emarginate.....                                      | 3                                |
| 2. Frontal crest broken by a narrow line; hind femora at apex resinous |                                  |
|  | <i>cornelli</i> Marl.            |
| Frontal crest unbroken; hind femora at apex black.....                 | <i>ostryæ</i> Marl.              |
| 3. Ocellar basin triangular; no black on pectus.....                   | <i>odoratus</i> Dyar.            |
| Ocellar basin quadrate, sides sub-parallel; two black spots on pectus  |                                  |
|  | <i>solitarius</i> , new species. |

#### 8. *Pachynematus robustiformis*, new species.

*Female.* — Length 6 mm.; length of anterior wing 6 mm. Robust. Head a little wider behind compound eyes, rather closely punctured; ocellar basin broad, walls linear, not well defined above; lower wall broader and rounded; middle fovea circular, rather large, deep; frontal crest very slightly broken; antennal foveæ rather large, sloping; clypeus shallowly, circularly emarginate; antennal joints three, four and five subequal. Intercostal vein its length basal to basal; stigma broad, rounded, widest across the middle. Inner tooth of claw small, a little basal to middle. Sheath broad, upper margin straight, lower margin tapering, apex truncate; cerci short, robust. Color black; labrum, mandibles (apex rufo-piceous), posterior angles of pronotum, tegulæ, extreme apices of coxæ, trochanters, four anterior femora, tibiæ and tarsi, posterior tibiæ except apex *pallid*; posterior femora brownish; bases of four anterior tibiæ infuscated; tip of posterior tibiæ and tarsi black; venter of abdomen more or less luteous. Wings hyaline, iridescent; nervures, costa and stigma brown.

*Habitat.* — Sierra Blanca, Costilla Co., Colo., 10,000–11,500 ft., June 22, 1907 (L. Bruner); also Ute Creek, Costilla Co., Colo., 9,000 ft., July 24, 1907 (H. S. Smith).

This species falls next to *robustus* Marl. It may be known from that species by the stigma being widest in the middle, the different position of the intercostal nervure, the short cerci, etc. The head

does not widen strongly behind the eyes. There may be a little obscurity in this part of Marlatt's table. Taking it as the head narrower behind it runs to *palliventris* Cress., from which it may be known by the vertex not being tuberculate, the third antennal joint not the longest, the tergum entirely black, etc.

**9. *Pristiphora dawsoni*, new species.**

*Female*. — Length 7 mm.; length of anterior wings about 7 mm. Robust; head not as wide as thorax, densely and moderately coarsely punctured; clypeus truncate; middle fovea distinct, circular; frontal crest strongly projecting, slightly broken; lateral walls of ocellar basin faintly visible; antennal foveæ deep, somewhat pointed above; third, fourth and fifth antennal joints subequal. Middle furrow of anterior lobe of mesonotum distinct for anterior two thirds; thorax not nearly as strongly punctured as head. Venation normal; inner tooth of claw large, obtuse, near middle of claw. Sheath broad, rounded on lower margin to apex, upper margin straight; cerci short, robust. Color black; apical margin of clypeus, labrum, mandibles (apex piceous), angles of pronotum, tegulæ, apical segment of abdomen, apices of coxæ, trochanters, basal two thirds of hind tibiæ pallid; anterior legs, except line on femora beneath, reddish-yellow; posterior femora brownish; apex of posterior tibiæ and tarsi black. Wings hyaline, iridescent, nervures and stigma brown.

*Habitat*. — Ute Creek, Costilla Co., Colo., 9,000 ft., July 4, 1907 (R. W. Dawson).

Related to *banksi* Marl. and *bucoda* Kincaid. It may be separated from *banksi* by the distinct large tooth of claw, pale pronotum, larger size, etc. From *bucoda* Kincaid it may be known by the black venter, costa and stigma being brownish, pronotum in part pale, different shaped sheath, etc. Type in the collection of University of Nebraska.

**10. *Pristiphora maura*, new species.**

*Male*. — Length 5 mm.; length of anterior wing 4.5 mm. Robust; head not as wide as thorax, rather sparsely covered with punctures, vertex rounded; clypeus truncate; middle fovea almost wanting; frontal crest shallowly excavated; no trace of ridges around ocelli; antennal foveæ deep, rounded above; middle furrow of middle lobe of mesonotum replaced by a carina. Thorax not as markedly punctured as head. Inner tooth of claw near middle, rather small, obtusely pointed. Venation normal, except that the first transverse cubitus is wanting; stigma rounded on lower margin, a little the widest across middle; proclivata small. Color black; apex of mandibles piceous; tips of anterior femora, four anterior tibiæ and tarsi, basal two thirds of posterior tibiæ *ferruginous*. Wings hyaline, iridescent; nervures, costa and stigma brown.

*Habitat*. — Ute Creek, Costilla Co., Colo., 9,000 ft., July 4, 1907 (R. W. Dawson). Type in collection of the University of Nebraska.

This species runs to *siskiyouensis* Marl. (Calif.) in Marlatt's

“Revision of the Nematinae of N. Am.” It may be known from that species by the narrower head, third antennal joint not much longer than fourth, middle tibiae and tarsi ferruginous, etc. From the habitat it would seem to be the male of *dawsoni*, but it differs so much that I do not think it can belong to this species.

**11. *Emphytus leucostoma*, new species.**

*Male*. — Length 6 mm.; length of anterior wing 5 mm. Slender; head about as wide as thorax, smooth, shining; vertex without furrows; ocellar region somewhat raised; third antennal joint a little longer than fourth, apical four joints equal, somewhat rounded beneath; malar space very narrow; clypeus broadly, deeply emarginate, lobes somewhat truncated; labrum rounded at apex. Thorax shining. Claws simple. Transverse radial near third transverse cubitus; transverse median in about middle of cell; cross-nervure of lanceolate cell but slightly oblique; hind wings without discal cells; lanceolate cell shortly petiolate at apex. Abdomen as usual. Color black; clypeus, labrum, mandibles (apex rufous), posterior angles of pronotum, tegulae, spot on pleurae before intermediate coxae, four anterior legs, posterior legs to tibiae, venter (the apex is yellowish) *white*; four anterior tarsi and posterior femora somewhat infuscated; posterior tibiae and tarsi strongly infuscated; tergal segments two and following with a ferruginous spot in middle of apical margin and narrow apical margin. Wings dusky hyaline, iridescent; nervures, costa and stigma except base which is pallid dark brown.

*Habitat*. — Ute Creek, Costilla Co., Colo., 9000 ft., July 4, 1907 (R. W. Dawson). Type in the entomological collection of the University of Nebraska.

This pretty little species may be separated from its allies as follows:

1. Abdomen black, not marked; clypeus black.....*inornatus* Say.  
Abdomen marked with yellowish-brown; clypeus white..... 2
2. Basal joint of antennae white; clypeus slightly emarginate.....*angustus* Kincaid.  
Basal joint of antennae black; clypeus deeply emarginate ..... 3
3. Claws with a large inner tooth; sinus behind ocelli; venter black at base; antennae ferruginous beneath (east to Ill.).....*apertus* Nort.  
Claws simple; no sinus behind ocelli; venter entirely pale; antennae not pale beneath (Colo.).....*leucostomus*, new species.

**12. *Taxonus lenis*, new species.**

*Male*. — Length 6.5–7 mm. Head finely, moderately densely punctured, covered with short black hair; ocellar basin triangular, lower wall not very well defined, side walls well defined; middle fovea broad, shallow; antennal foveae quite distinct, broader below the antennae; antennae rather stout, third and fourth joints equal, fifth a little shorter; clypeus deeply, squarely emarginate, lobes narrow, sharply pointed; labrum rounded at the apex; front well produced between the antennae. Thorax not as densely punctured as the head; post-scutellum pointed posteriorly; inner spur of anterior tibiae thicker than outer one. Claws apparently



simple; hind tibiæ as long as or a little longer than the first two tarsal joints, not as long as all the tarsal joints. Transverse radial nervure received beyond middle of third cubital (in the type it is almost interstitial with the third transverse cubitus, in the paratype it is nearer the middle of the cell); transverse median in about middle of first discoidal; radial cell of hind wing with a short appendiculation; lanceolate cell of hind wing briefly, but distinctly, petiolate at apex. Abdomen not very shining, apical segment with short hairs (these hairs are more distinct on the paratype). Color black; labrum, posterior angles of pronotum and tegulæ white; palpi flavous; apical tip of anterior coxæ beneath pallid, rest of coxæ black; femora, tibiæ, tarsi except posterior pair which are brownish, abdominal segments two, three, four and five (in the paratype the fifth segment is mostly brownish), except a band on sides, partly on venter, which is black, reddish yellow. Wings fusco-hyaline; nervures and stigma except at base which is white and the basal part of costa, which is reddish black.

*Female*. — Length 7 mm. Very similar to ♂ but the coxæ beneath are reddish yellow; trochanters black as in ♂; the transverse radial received in middle of third cubital; transverse median a little basal to middle of first discoidal. Sheath broad, rather truncate at apex, upper margin sharply pointed, lower apical margin rounded.

*Habitat*. — ♂, Horsetooth Gulch, Larimer Co., Colo., June 5, 1893 (C. P. Gillette); ♂, Ft. Collins, Colo., June 4, 1894 (C. P. Gillette); ♀, Ft. Collins, Colo., June 16, 1899. The specimen from Horsetooth Gulch, which is the type, is in the collection of the Colorado Agricultural College.

This species is related to *Parasiobla rufocinctus* Nort., but may be easily known from that species by the densely but finely punctured head and thorax; the better developed ocellar basin; the radial cell of hind wings having an appendiculation; lanceolate cell of hind wings petiolate at the apex; rufous band on the abdomen interrupted beneath; posterior angles of pronotum white; less robust stature; and many other characters.

In Dr. Ashmead's table (Can. Ent., Dec., 1898) this species runs to his genus *Aomodictium*, but the claws are simple. The placing of this species in *Taxonus* is only provisional, although it belongs with *Taxonus* according to Rev. Konow (Genera Insectorum).

### 13. *Rhogogaster sayi*, new species.

*Female*. — Length 7.5 mm. Head about as wide as thorax, not wider behind the eyes; mesial to each lateral ocellus there is a carina which runs down nearly to the antennæ where the two join leaving the lower ocellus in an elongate oval basin, open between the lateral ocelli. There is a distinct furrow outside of lateral ocelli to vertex; frontal area well defined between the antennæ; eyes nearly touching base of mandibles; clypeus deeply, squarely emarginate, lobes somewhat triangular, rounded at apex; labrum nearly as wide as clypeus, rounded at apex; apex with a few long hairs; an-

tennæ long, slender, reaching beyond base of abdomen, third joint but little longer than fourth; joints gradually decreasing in length towards apex; apex of third and the following joints covered with short, white pile. Head generally covered with small punctures. Thorax punctured like head. First joint of middle tarsi a little longer than  $2 + 3$ ; posterior coxæ a little longer than usual but not as long as in *Macrophya*; four anterior legs covered with short white pile especially on tarsi. Intercostal vein a little proximal to the basal; lanceolate cell of fore wing with a short straight cross-nervure; second recurrent nervure wanting; lanceolate cell of hind wings shortly petiolate; upper discal cell of hind wings greatly exceeding lower on outer margin. Abdomen very minutely punctured at sides above, and two apical segments above the punctures are large and shallow; apical dorsal segment with a ridge in the middle; sheath broad, rounded at apex; apex of abdomen and sheath with rather long hairs. Color black; spot between antennæ, one between antennæ and orbit, two spots on the clypeus, labrum, cheeks, an elongate spot on each anterior corner of middle lobe of mesonotum, middle of scutellum, enchri, two spots on side of meso-epimera, a short line on one side of prothorax, middle legs except a line above and tibiæ, two lines on posterior coxæ, spot on trochanters, a band on hind femora, a more or less obscure line on side of abdomen, pallid; faint line on inner orbits extending to vertex, where it curves inward, antennæ, protibiæ and tarsi above, mesotibiæ above and mesotarsi dark rufous; hind tibiæ wanting; extreme apex of apical abdominal segment fuscous. Wings hyaline; nervures and stigma dark rufous.

*Habitat.* — Cameron Pass, Larimer Co., Colo., alt. about 10,300 ft., August 3, 1892 (C. P. Gillette). Type in the Colorado Agricultural College collection.

Quite distinct from all the other species assigned to this genus by Rev. Konow (*Genera Insectorum*). In coloration it resembles *Pachyprotasis nigrofasciata* but may at once be known from that species by the more distinct wall around the ocellar basin, the cross-nervure of lanceolate cell, the weaker venation, etc.

#### 14. *Schizocerus sericeiformis*, new species.

*Male.* — Length about 5 mm. Cheeks very narrow; malar space wanting; clypeus truncate or nearly so, punctured across the middle; ocellar basin spear-shaped, well defined, walls somewhat rounded; medial ridge prominent; a furrow partly surrounding each lateral ocellus above; face depressed around ocelli; antennæ short, hardly reaching to scutellum, third joint bifurcate, clothed with rather long black hairs. Scutellum rounded at apex. Claws simple. Lanceolate cell broadly contracted; three cubital cells, first transverse cubital wanting; second cubital (third if first transverse cubital is present) wider on radial nervure than cubital; transverse median in middle of cell, in one wing there is an extra nervure behind transverse median. Color black, abdomen somewhat brownish; mandibles and ocelli piceous; pronotum and tegulæ luteous; apex of femora, tibiæ and tarsi (apex of posterior tibiæ and their tarsi infuscated) pallid. Wings hyaline; nervures pale brown, stigma and apex of costa a little darker, costa at base pallid.

*Habitat.* — Stratton, Nebraska, July 14, 1899 (collector unknown).

Type in the collection of the Colorado Agricultural College.

Related to *S. sericeus* Nort., but may be distinguished by the head and thorax being without white pile; clypeus not emarginate; mesotibiæ pale throughout, etc.

**15. *Lophyrus hypomelas*, new species.**

*Male*. — Length 5.5 mm. Head about as wide as thorax, seen from above narrowly transverse; slightly narrower behind eyes; ocelli in a curved line; lower ocellus in a narrow V-shaped basin, the walls of which are low; two somewhat indistinct furrows running from base of each antenna to near occiput; eyes remote from mandibles; between ocelli and occiput is a transverse furrow; clypeus nearly truncate; labrum rounded at apex; antennæ 18-jointed, each joint with two hairy rays beneath, the longest ones near the base. Head with fine dense punctures, deeper on malar space (the lower inner orbit is somewhat wrinkled); face and clypeus with white hair. Thorax shining, with fewer punctures than head, covered with short dull white hair. Tibial spur short, stout, sharp, simple; claws with an obtuse inner tooth between middle and apex. Costal cell wide, intercostal nervure incomplete, placed a little more than width of cell proximally to basal; basal nervure joining subcostal at origin of cubitus; first transverse cubitus incomplete; first cubital cell higher than broad; lanceolate cell nearly closed back of the straight cross-nervure; hind wings with two discal cells; lanceolate cell of hind wing petiolate at apex. Abdomen smooth, shining; apical ventral segment broadly oval, with distinct, rather sparse punctures. Color black; labrum, apex of mandibles, extreme apex of abdomen dusky reddish; venter very dark piceous; tegulæ at extreme base luteous; palpi pallid; legs except base of four posterior coxæ, and all of anterior coxæ, pale luteous. Wings clear hyaline; nervures and stigma brown.

*Habitat*. — Ward, Boulder Co., Colo., alt. 9,217 ft., August 30, 1899 ("O.B."). Type in the collection of Entomological Department of Colorado Agricultural College.

This species is quite distinct from any of the American species, being easily separated by the almost entirely black color and pale luteous legs.

**16. *Lophyrus gillettei*, MacG. (M.S.).**

*Female*. — Length 6.5 mm. Head nearly as wide as thorax, deeply and densely punctured, punctures on posterior orbits sparser; ocelli in a low triangle; lower ocellus in a very shallow basin; a distinct transverse furrow behind ocelli; clypeus shallowly emarginate; labrum notched in middle; malar space distinct but not as long as in *L. hypomelas* Roh.; antennæ 16-jointed, first joint of the flagellum a little longer than the others, rays about twice as long as width of joints, longest on the middle joints. Thorax above punctured like head; pleuræ and pectus smooth and shining; tibial spurs simple, short, stout; claws with an obtuse tooth in middle; costal cell broad, intercostal vein incomplete, about width of cell proximal to basal; basal vein joining subcostal a little proximal to origin of cubitus; first transverse cubitus incomplete; first cubital cell higher than broad. Abdomen with a few punctures, deeper at apex; sheath nearly concealed. Color black; mandibles except tips pale piceous;

palpi, apex of femora, tibiæ and tarsi cream-colored; apex of four posterior tibiæ and their tarsi infuscated. Wings subviolaceous; nervures brown.

*Male.* — Length 6.5 mm. In general resembles ♀. Antennæ 18-jointed; outer rays longer at base than apex, tapering to apex; tarsal claw-tooth not as large as in ♀; tibiæ, tarsi and palpi not infuscated; seventh ventral segment broadened at apex, roughened rather unevenly.

*Habitat.* — Rist Cañon, Larimer Co., Colo. (C. P. Gillette). Four ♀♀ and 5 ♂♂ raised from larvæ on *Pinus scopulorum*. Larvæ collected July 21, 1896, flies emerging October 1 to 3.

This species is easily separated from other American species by the nearly entirely black color in both sexes and other characters. The ♂ has some resemblance to *L. hypomelas* but may be easily separated by the more transverse head, shape of the seventh ventral segment, color of legs, etc.